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| 09/392,170      | 09/08/1999  | MONIKA R. HENZINGER  | 3792(PD-595)        | 9654             |

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| EXAMINER |
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2176

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/392,170

Applicant(s)

HENZINGER ET AL.

Examiner

Almari Romero

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to communications: Application filed on 9/08/99 and the IDS filed on 12/13/99.
2. Claims 1-59 are pending in the case. Claims 1, 7, 13, 20, 21, 27, 28, 29, 35, 41, 48, 49, 55, 56, 57, 58, and 59 are independent claims

#### ***Information Disclosure Statement***

3. The reference Bray, T. "Measuring the Web" in the information disclosure statement (IDS) submitted on 12/13/99 has not been considered by the examiner because it failed to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because each publication listed in an information disclosure statement must be identified by publisher, author (if any), title, **relevant pages of the publication**, date, and place of publication.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

#### ***Drawings***

4. The formal drawings were received on 9/08/99 and were approved by the Draftsperson.

***Specification***

5. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code on page 1, line 17 and page 16, line 5 and line 18. Applicant is suggested to add left and right brackets or quotation marks on each side of hyperlink to deactivate hyperlink or Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2-3, 15, 24-25, 28, 30-31, 43, 52-53, and 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations “repeating steps...” with no predetermined condition being met can lead to a continuous loop conflicting with other “repeating steps” which are performed until a predetermined condition is met.

8. Claims 7, 25, 28, and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations “adding the selected host to the host set ” and “adding the selected document to the document set of the selected host”, it is unclear of why a host or document is being added if it already exist in the host set or document set for selection.

Dependent claims 8-12, and 36-40 are rejected for fully incorporating the deficiencies of their base claims.

9. Claims 23 and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Each element is not defined by the claim. Applicant is advised to define each element of the equation.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. **Claims 1, 4-5, 29, 32-33, and 57 are rejected under 35 U.S.C. 102(e) as being anticipated by Page (USPN 6,285,999 B1 – filed on 1/1998).**

**Regarding independent claims 1 and 29, Page discloses:**

A computer-implemented method and computer program product for randomly walking through a hypertext-linked document set comprising a plurality of documents, wherein at least a subset of the documents contain a plurality of links to other documents, each document being associated with a host (col. 3, lines 56-66: teaches plurality of documents with links to other documents), the method comprising:

- a) selecting a host (col. 7, lines 16-21: teaches server);
- b) selecting at random a document associated with the host (col. 7, lines 38-44: teaches jump randomly to any web page);
- c) retrieving the selected document (col. 3, lines 4-16: teaches retrieval of an important page);
- d) selecting at random a link in the retrieved document (col. 2, lines 1-5: teaches selecting link);
- e) retrieving a document referenced by the selected link; and f) repeating d) and e) until a predetermined condition is met (col. 2, lines 1-5: teaches link to retrieved relevant web document).

**Regarding dependent claims 4 and 32, Page discloses:**

wherein the document set is the World Wide Web, and wherein each document is a web page (col. 5, lines 56-66: teaches web page).

**Regarding dependent claims 5 and 33, Page discloses:**

wherein each host corresponds to a domain (col. 7, lines 16-21: teaches server with domain).

**Regarding claim 57**, the limitations of claim 57 is a system for performing the method steps of claim 1 and is rejected under the same rationale.

12. **Claims 13, 18-20, 41, 46-48, and 58-59 are rejected under 35 U.S.C. 102(e) as being anticipated by Bharat et al., “A technique for measuring the relative size and overlap of public Web search engines”, 4/1998, Proceedings of the Seventh International World Wide Web Conference, pages 1-13.**

**Regarding independent claims 13 and 41**, Bharat et al. (Bharat) discloses:

A computer-implemented method for measuring relative quality of a search engine index, comprising:

- a) performing a two-level random walk among documents within a document set (page 4, Section 2.2: teaches perform random walks among web pages);
- b) for each document encountered in the random walk, determining whether the document is indexed by the search engine index (page 4, Section 2.2: teaches indexing pages); and
- c) aggregating the results of b) (page 5, Section 3.1: teaches result set).

**Regarding dependent claims 18 and 46**, Bharat discloses:

wherein each document contains a plurality of words, and wherein b) comprises, for each document encountered in the random walk: b.1) selecting at least one word from the document; b.2) performing a query on the search engine index based on the selected at least one word, to obtain search results; and b.3) determining whether the document is included in the obtained search results (page 4, Section 3: teaches queries to be performed for web words).

**Regarding dependent claims 19 and 47**, Bharat discloses:

wherein b.1) comprises selecting at least one word based on rarity (page 4, Section 3: teaches low frequency words).

**Regarding independent claims 20 and 48**, Bharat discloses:

A computer-implemented method for measuring relative quality of a document in a document set, comprising:

a) performing a two-level random walk among documents within a document set (page 4, Section 2.2: teaches perform random walks among web pages); and

b) determining a quality metric responsive to the number of times the document is encountered in the random walk (page 4, Section 2.2: teaches random walk for searching through web pages and on page 5, Section 3.1: teaches ranking strategy to determine quality of web pages).

**Regarding claims 58-59**, the limitations of claims 58-59 are a system for performing the method steps of claims 13 and 20 and are rejected under the same rationale.

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



14. **Claims 2-3, 27, 30-31, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (USPN 6,285,999 B1 – filed on 1/1998) in view of Singhal (USPN 6,370,527 B1 – filed on 12/1998).**

**Regarding dependent claims 2 and 30,** Page discloses the invention substantially as claimed as described *supra*. However, Page does not explicitly disclose “selecting at random a host from among the previously selected hosts”. Singhal on col. 1, lines 30-65 and col. 7, lines 21-30: teaches selecting search engine device for retrieval of documents.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Page to provide a way to select a search engine device for the retrieval of a selected document in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

**Regarding dependent claims 3 and 31,** Singhal discloses:

further comprising, prior to d): c.1) generating a random number; c.2) determining whether the random number falls within a predetermined range; and c.3) responsive to the random number falling within the predetermined range (Page on col. 5, lines 21-59: teaches determining random jump factor): c.1.1) selecting at random a host from among the previously selected hosts; and c.1.2) repeating b) through f) (Singhal on col. 1, lines 30-65 and col. 7, lines 21-30: teaches selecting search engine device for retrieval of documents).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Page to provide a way to select a search engine device for the retrieval of a selected document in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

**Regarding independent claims 27 and 55,** Page discloses the invention substantially as claimed as described *supra*. However, Page does not explicitly disclose “selecting at random a host from among the previously selected hosts”. Singhal on col. 1, lines 30-65 and col. 7, lines 21-30: teaches selecting search engine device for retrieval of documents.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Page to provide a way to select a search engine device for the retrieval of a selected document in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

**15. Claims 6 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Page (USPN 6,285,999 B1 – filed on 1/1998) in view of Bharat et al., “A technique for measuring the relative size and overlap of public Web search engines”, 4/1998, Proceedings of the Seventh International World Wide Web Conference, pages 1-13.**

**Regarding dependent claims 6 and 34,** Page discloses the invention substantially as claimed as described *supra*. However, Page does not explicitly disclose “performing a second two-level random walk through the hypertext-linked document set”. Bharat on page 4, Section 2.2: teaches random walks can be performed to entire Web including pages.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Bharat into Page to provide a method such as random walks through a plurality of documents in order to increase the flexibility of exploring the entire web.

16. **Claims 7-12 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal (USPN 6,370,527 B1 – filed on 12/1998) in view of Bharat et al., “A technique for measuring the relative size and overlap of public Web search engines”, 4/1998, Proceedings of the Seventh International World Wide Web Conference, pages 1-13, and further in view of Page (USPN 6,285,999 B1 – filed on 1/1998).**

**Regarding independent claims 7 and 35, Singhal discloses:**

A computer-implemented method for randomly walking through a hypertext-linked document set comprising a plurality of documents, wherein at least a subset of the documents contain a plurality of links to other documents, each document being associated with a host (Singhal on col. 4, lines 7-17: teaches search engine devices for retrieval of web pages), the method comprising:

a) initializing a host set (Singhal on col. 1, lines 30-62: teaches plurality of search engine devices);

c) selecting at random a host from the host set (Singhal on col. 1, lines 30-32 and col. 7, lines 21-30: teaches selecting search engine device);

e) adding the selected host to the host set (Singhal on col. 2, lines 18-27: teaches a number of search engines that found the same source can be added based on availability);

f) adding the selected document to the document set of the selected host (Singhal on col. 4, lines 1-17: teaches source such as web page or document can be found by the search engine device and added in search result); g.4) repeating e) through h) until a predetermined condition is met; and h) responsive to the selected document not containing at least one link, repeating c)

through h) until a predetermined condition is met (Singhal on col. 4, lines 45-57: teaches document without links).

However, Singhal does not explicitly disclose “a document set for each host in the host set” and “selecting at random a document from the document set of the selected host”. Bharat on page 4, Section 2.2: teaches large set of random pages and selecting a page.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Bharat into Singhal to provide a large set of random pages and selecting a page at random in order to enhance the estimation of sizes of the search engine.

However, Singhal and Bharat do not explicitly disclose “selected document containing at least one link, selecting at random a link from the selected document, selecting a document corresponding to the selected link, and selecting a host corresponding to the selected document”.

Page discloses on col. 3, lines 4-16: page containing at least one link; on col. 2, lines 1-5: selecting a link from the web page; on col. 2, lines 1-5: retrieval of web page corresponding to a selected link.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Singhal and Bharat to provide a way to select a link from a web page to retrieve another web page from a selected server found by a search engine in order to increase the probability that a user will end up at an important page.

**Regarding dependent claims 8 and 36, Singhal discloses:**

e) is performed responsive to the selected host not being in the host set; and

f) is performed responsive to the selected document not being in the document set of the selected host (col. 2, lines 18-27: teaches number of search engines can be selected or not selected based on availability and if being able to find the requested source (document)).

**Regarding dependent claims 9 and 37,** Singhal discloses:

wherein g) further comprises, prior to g.1): g.0) responsive to a random event, repeating c) through h) until a predetermined condition is met; and wherein g.1) through g.4) are performed responsive to non-occurrence of the random event of g.0) (Singhal on col. 4, lines 45-57: teaches search query (event)).

**Regarding dependent claims 10 and 38,** Singhal discloses:

further comprising, prior to g.1): g.0.1) generating a random number; g.0.2) determining whether the random number falls within a predetermined range; and g.0.3) responsive to the random number falling within the predetermined range, repeating c) through h) until a predetermined condition is met; and wherein g.1) through g.4) are performed responsive to the random number not falling within a predetermined range (Singhal on col. 5, lines 44-60: teaches number of factors to be weighted).

**Regarding dependent claims 11 and 39,** Singhal discloses:

wherein the document set is the World Wide Web, and wherein each document is a web page (Singhal on col. 4, lines 7-17: teaches web page).

**Regarding dependent claims 12 and 40,** Singhal discloses:

wherein each host corresponds to a domain (Singhal on col. 3, lines 30-45: teaches network of search engine devices).

17. **Claims 14, 21-23, 26, 42, 49-51, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bharat et al., “A technique for measuring the relative size and overlap of public Web search engines”, 4/1998, Proceedings of the Seventh International World Wide Web Conference, pages 1-13 in view of Page (USPN 6,285,999 B1 – filed on 1/1998).**

**Regarding dependent claims 14 and 42**, Bharat discloses the invention substantially as claimed as described *supra*. However, Bharat does not explicitly disclose “selecting a host; selecting at random a document associated with the host; retrieving the selected document; selecting at random a link in the retrieved document; and retrieving a document referenced by the selected link”.

Page on col. 7, lines 16-21: teaches server; on col. 7, lines 38-44: teaches jump randomly to any web page (select at random a document); on col. 3, lines 4-16: teaches retrieval of an important page; on col. 2, lines 1-5: teaches selecting link; and col. 2, lines 1-5: teaches link to retrieved relevant web document.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Bharat to provide a way to select a link from a web page to retrieve another web page from a selected server found by a search engine in order to increase the probability that a user will end up at an important page.

**Regarding independent claims 21 and 49**, Bharat discloses:

A computer-implemented method for measuring relative quality of a document in a document set comprising a plurality of documents, wherein at least a subset of the documents contain a plurality of links to other documents, the method comprising:

a) performing a two-level random walk among documents within a document set (Bharat on page 4, Section 2.2: teaches perform random walks among web pages); and

b) determining a quality metric (Bharat page 5, Section 3.1: teaches ranking strategy to determine quality of web pages).

However, Bharat does not explicitly disclose “responsive to the number of documents that link to the document”. Page on col. 2, lines 1-5: teaches link to retrieved relevant web document.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Bharat to provide a way to link from a web page to retrieve another web page found by a search engine in order to increase the probability that a user will end up at an important page.

**Regarding dependent claims 22 and 50**, Bharat discloses:

wherein b) comprises determining a quality metric (Bharat page 5, Section 3.1: teaches ranking strategy to determine quality of web pages) responsive to the number of documents that link to the document, and responsive to the quality metric of the linking documents (Page on col. 2, lines 1-5: teaches link to retrieved relevant web document).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Bharat to provide a way to link from a web page to retrieve another web page found by a search engine in order to increase the probability that a user will end up at an important page.

**Regarding dependent claims 23 and 51, Page discloses:**

wherein b) comprises determining a value for:  $R(p) = d/T + (1-d) \sum R(p_i)/C(p_i)$  where: T is the total number of documents in the document set; d is a damping factor such that  $0 < d < 1$ ; documents  $p_1, \dots, p_k$  each contain at least one link to document p; and C(p) is the number of links out of p (Page on col. 6, lines 49-60: teaches damping factor and documents containing forward links to determine a value).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Bharat to provide a damping factor and documents containing forward links to determine a value based on a ranking strategy (quality metric) in order to enhance the calculating an importance rank for a number of linked document.

**Regarding dependent claims 26 and 54, Bharat discloses:**

further comprising: c) determining a quality metric for at least one additional document; and d) ranking the quality metric of the first document with respect to the quality metrics of the additional documents (Bharat on page 5, Section 3.1: teaches ranking strategy to determine quality of web pages).

18. **Claims 15-17, 24-25, 28, 43-45, 52-53, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bharat and Page as applied to claims 13-14 and 41-42 above, and further in view of Singhal (USPN 6,370,527 B1 – filed on 12/1998).**

**Regarding dependent claims 15 and 43, Bharat and Page disclose the invention substantially as claimed as described *supra*. However, Bharat and Page do not explicitly disclose “selecting at**



random a host from among the previously selected hosts”. Singhal on col. 1, lines 30-65 and col. 7, lines 21-30: teaches selecting search engine device for retrieval of documents.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Bharat-Page to provide a way to select a search engine device for the retrieval of a selected document in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

**Regarding dependent claims 16 and 44**, Singhal discloses:

discloses:

wherein at least a subset of the documents contain a plurality of links to other documents, each document being associated with a host, and wherein a) comprises:

a.1) initializing a host set (Singhal on col. 1, lines 30-62: teaches plurality of search engine devices);

a.2) initializing a document set for each host in the host set (Bharat on page 4, Section 2.2: teaches large set of random pages for selection);

a.3) selecting at random a host from the host set (Singhal on col. 1, lines 30-32 and col. 7, lines 21-30: teaches selecting search engine device);

a.4) selecting at random a document from the document set of the selected host (Bharat on page 4, Section 2.2: teaches selecting at random a page);

a.5) adding the selected host to the host set (Singhal on col. 2, lines 18-27: teaches a number of search engines that found the same source can be added based on availability);

a.6) adding the selected document to the document set of the selected host (Singhal on col. 4, lines 1-17: teaches source such as web page or document can be found by the search engine device and added in search result);

a.8) responsive to the selected document not containing at least one link, repeating a.3) through a.8) until a predetermined condition is met (Singhal on col. 4, lines 45-57: teaches document without links).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Bharat to provide a way to select search engine device which can be added to a plurality of search engine devices based on availability or finding requested web page in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

However, Bharat does not explicitly disclose “selecting at random a link from the selected document; selecting a document corresponding to the selected link; and selecting a host corresponding to the selected document”.

Page on col. 7, lines 38-44: teaches jump randomly to any web page (select at random a document); on col. 3, lines 4-16: teaches retrieval of an important page; on col. 2, lines 1-5: teaches selecting link; and col. 2, lines 1-5: teaches link to retrieved relevant web document.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Bharat and Singhal to provide a way to select a link from a web page to retrieve another web page from a selected server found by a search engine in order to increase the probability that a user will end up at an important page.

**Regarding dependent claims 17 and 45, Singhal discloses:**

e) is performed responsive to the selected host not being in the host set; and  
f) is performed responsive to the selected document not being in the document set of the selected host (Singhal on col. 2, lines 18-27: teaches number of search engines can be selected or not selected based on availability and if being able to find the requested source (document)).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Bharat-Page to provide a way to select a search engine device for the retrieval of a selected document based on availability in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

**Regarding dependent claims 24 and 52**, Bharat discloses the invention substantially as claimed as described *supra*. However, Bharat does not explicitly disclose “selecting a host; selecting at random a document associated with the host; retrieving the selected document; selecting at random a link in the retrieved document; and retrieving a document referenced by the selected link”.

Page on col. 7, lines 16-21: teaches server; on col. 7, lines 38-44: teaches jump randomly to any web page (select at random a document); on col. 3, lines 4-16: teaches retrieval of an important page; on col. 2, lines 1-5: teaches selecting link; and col. 2, lines 1-5: teaches link to retrieved relevant web document.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Bharat to provide a way to select a link from a web page to retrieve another web page from a selected server found by a search engine in order to increase the probability that a user will end up at an important page.

However, Bharat and Page do not explicitly disclose “selecting at random a host from among the previously selected hosts”. Singhal on col. 1, lines 30-65 and col. 7, lines 21-30: teaches selecting search engine device for retrieval of documents.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Bharat-Page to provide a way to select a search engine device for the retrieval of a selected document in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

**Regarding dependent claims 25 and 53, Bharat discloses:**

wherein each document is associated with a host, and wherein a) comprises:

a.1) initializing a host set (Singhal on col. 1, lines 30-62: teaches plurality of search engine devices);

a.2) initializing a document set for each host in the host set (Bharat on page 4, Section 2.2: teaches large set of random pages for selection);

a.3) selecting at random a host from the host set (Singhal on col. 1, lines 30-32 and col. 7, lines 21-30: teaches selecting search engine device);

a.4) responsive to a random event:

a.4.1) selecting at random a host from among the previously selected hosts (Singhal on col. 1, lines 30-65 and col. 7, lines 21-30: teaches selecting search engine device for retrieval of documents); and a.4.2) repeating a.2) through a.7).

a.5) selecting at random a document from the document set of the selected host (Bharat on page 4, Section 2.2: teaches selecting at random a page);

a.6) adding the selected host to the host set (Singhal on col. 2, lines 18-27: teaches a number of search engines that found the same source can be added based on availability);

a.7) adding the selected document to the document set of the selected host (Singhal on col. 4, lines 1-17: teaches source such as web page or document can be found by the search engine device and added in search result);

a.9) responsive to the selected document not containing at least one link, repeating a.3) through a.9) until a predetermined condition is met (Singhal on col. 4, lines 45-57: teaches document without links).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Singhal into Bharat to provide a way to select search engine device which can be added to a plurality of search engine devices based on availability or finding requested web page in order to allow a user to search all of the available portions of a distributed network without having to repeatedly reenter their search query.

However, Bharat does not explicitly disclose “selecting at random a link from the selected document; selecting a document corresponding to the selected link; and selecting a host corresponding to the selected document”.

Page on col. 7, lines 38-44: teaches jump randomly to any web page (select at random a document); on col. 3, lines 4-16: teaches retrieval of an important page; on col. 2, lines 1-5: teaches selecting link; and col. 2, lines 1-5: teaches link to retrieved relevant web document.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Page into Bharat and Singhal to provide a way to select a

link from a web page to retrieve another web page from a selected server found by a search engine in order to increase the probability that a user will end up at an important page.

**Regarding claims 28 and 56**, the limitations of claims 28 and 56 are similar to those in rejecting claims 15-17, 24, 43-44, 52 and are rejected under the same rationale.

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almari Romero whose telephone number is (703) 305-5945. The examiner can normally be reached on Mondays - Fridays (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on (703) 308-5186. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

AR  
December 12, 2002

  
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